

SPRING 2008

SPECIAL EDITION: Prevention in Higher Education

Alcohol, Tobacco and Other Drugs

Prevention File



■ Game Day: An Excuse to Drink

■ Special Occasions . . .
for Prevention

■ Salvia Divinorum: Rising
Popularity among College Students

"Pre-partying" before the Real Party

Three-quarters of college drinkers say they "pre-party," participating in heavy, rapid drinking before attending a real party where the drinking continues. In addition, about 45 percent of all drinking events involve a pre-party, according to a recent study (*Journal of American College Health*, December 2007).

The study, led by Joseph LaBrie, PhD, assistant professor of psychology and director of an alcohol awareness program

at Loyola Marymount University in Los Angeles, found that on pre-partying days, men consumed about eight drinks on average and women consumed about six. On days when students went to parties but did not pre-party, men consumed an average of six drinks and women consumed about four. Of all drinking events involving pre-partying, 80 percent involved additional drinking afterward.

LaBrie told *USA Today* (Dec. 18, 2007) pre-partying is just now coming on the radar of administrators, although it has been a well-known behavior among students for some time. Most pre-partying is done in dorm rooms of underage students, he says. "It's a judgment question. Pre-partying raises blood alcohol levels and impairs students' judgment, and then they continue drinking."

Social Host Liability in Oklahoma

The city of Edmond, home to the University, enacted Oklahoma's first social host law in 2007. Now, about a year later city officials say the law is working better than they hoped.

According to an Associated dispatch, the Press ordinance is patterned after a law in San Diego that stood up to scrutiny during several court challenges. The ordinance requires a party host to ensure that underage drinking isn't happening on the property. That includes monitoring the amount of alcohol present and verifying the age of those drinking.

"I think there are fewer underage drinkers on the road. There are no downsides to it," Police Chief Bob Ricks said.

Promising Program from University of Cincinnati

University of Cincinnati researchers have recently completed a pilot program that showed promising results, although more research will be needed before the program can be used on a wide scale. The three-week program involved three one-on-one interview sessions between counselors and 22 college students who reported at least one heavy drinking episode, occasional or frequent drinking problems and social anxiety within the month prior to beginning the program.

"A lot of college students don't want to do something about their alcohol use, even if they realize there's a problem, but they like having the good social interaction," said Giao Tran, PhD, an associate professor of psychology and psychiatry at the University. "We help them see the connection between the two—that if they continue to drink when they're socially anxious, they're not helping either problem."

The intervention program consisted of three sessions (one session per week, running about an hour-and-a-half) with the first session exploring the participant's history of social anxiety and alcohol use and personal feedback on how the two could be interlinked. The second session examined social anxiety, drinking-related problems and family risk factors for both problems.

The third session involved role-playing in a social situation with a research assistant, which provided the student with tools to effectively cope with anxiety while managing alcohol consumption. Follow-up meetings were conducted one month and four months after the series of three sessions.

Tran says in the follow-up sessions, students reported a significant reduction in number of drinks consumed and in bouts of heavy drinking. Students also reported that they weren't as fearful about being judged negatively by their peers, a common trigger for social anxiety. There was also a significant increase in the students' confidence about turning down a drink around other people who were drinking.

Think before You Speak

Jokes in classes about hangovers and "hearty partying" may be a thing of the past, at least at Fresno State University. That's because 40 professors there have taken a pledge to watch what they say in classrooms about drinking, according to *The Fresno Bee* (Jan. 29, 2008). The pledge is a new initiative in the university's campaign to combat irresponsible drinking.

The 40 professors—out of 1,300 part-time and full-time faculty—pledged to do three things:

- Become familiar with laws and campus policies about alcohol.
- Know about programs and services for students seeking help for alcohol problems and post a sticker or magnet on office doors identifying with the pledge.
- Promote "safe and responsible" attitudes toward alcohol in classroom discussions. That includes professors—as role models—not making comments suggesting that all college students drink excessively.

Professor of music Michael Caldwell, who organized professors to take the pledge, said that students have told him that professors have remarked, "It's the weekend. Let's go party" and "Everybody enjoy partying this weekend."

"It's easy to make flippancy comments about alcohol, and bring your own life or the college atmosphere into the classroom. It's usually very innocent and unintentional. We're not out to blacklist somebody or make somebody uncomfortable. It's more about awareness, and the impact of a casual statement," said Caldwell.

Brain Enhancement Drugs

Performance enhancing drugs have been around a long time, and not just in sports. For example, during World War II amphetamines were a very important part of performance on both sides of the hostilities. So-called prescription cognitive enhancers such as Adderall, a stimulant, and Provigil, which promotes wakefulness, are being used by students to clarify their minds and improve their concentration.

Now, it turns out, such drug use on campus is not limited to students. Some faculty members now admit to them, according to articles in *Nature* and *The New York Times*. However, Martha Farah, director of the Center for Cognitive Neuroscience at the University of Pennsylvania and other midcareer scientists interviewed for the *Times* article said that, as far as they knew, very few of their colleagues used brain-boosting drugs regularly. Many have used Provigil for jet lag, or even to stay vertical for late events. But most agreed that the next generation of scientists, now in graduate school and college, were more likely to use the drugs as study aids and bring along those habits as they moved up the ladder.

"Even though stimulants and other cognitive enhancers are intended for legitimate clinical use, history predicts that greater availability will lead to an increase in diversion, misuse and abuse," wrote Nora Volkow, MD, director of the National Institute on Drug Abuse, and James

Prevention File is a publication of the Silver Gate Group
(Federal Tax ID: 33-0714724)

Opinions expressed herein are those of the authors or other sources cited
and do not necessarily reflect the beliefs of the Silver Gate Group, its
editorial advisors, its officers or its personnel.

Publisher: Tom Colthurst
Editor: Barbara E. Ryan
Editor Emeritus: Robert Zimmerman
Contributing Editors: William DeJong, Jean Seager
Design/Illustrations: John Lane
Production: J. Lane Designs

Copyright 2008 by the Silver Gate Group. Permission to reprint
articles is granted for noncommercial use and with acknowledgment.
We would appreciate receipt of any publication carrying a reprinted
Prevention File article.

Comments and suggestions are welcome.
Address letters to *Prevention File*, Silver Gate Group
Internet: tomc@silvergategroup.com

PREVENTION FILE Contents

SPECIAL EDITION: Prevention in Higher Education • Spring 2008



COVER
"GAME DAY"
by J. Lane Designs

2 Game Day: An Excuse to Drink.

Colleges and universities search for ways to make their prevention efforts
more effective.

6 Special Occassions . . . for Prevention

During special occasions, the number of students who drink alcohol and the
amount of alcohol they consume goes up dramatically.

10 BOOK REVIEW

Paying the Tab: The Costs and Benefits of Alcohol Control

Economist Philip J. Cook makes the case for increasing alcohol taxes.

12 The Age 21 Debate: Battling over the Word "Adult"

by William DeJong

Two standard definitions of adult need to be considered when it comes to the legal
drinking age.

14 Take Back the Day! A Call to Minor Action

by Mark Wood

Using class schedules for prevention.

18 Salvia Divinorum: Rising Popularity among College Students

More research is needed on the potential for harm to individuals and the sur-
rounding community

Prevention Briefs Inside front and back covers



Game Day: An Excuse to Drink?



COLLEGE FOOTBALL GAMES AND OTHER SPORTS EVENTS

steeped in a tradition of rivalry between schools have long been associated with rowdy and risky behavior fueled by alcohol. “Win or Lose, We Booze!” as one slogan has it. This game-day phenomenon is attracting new attention as colleges and universities search for ways to make their prevention efforts more effective.

A game-day study at the University of Florida identified the student age-group that drank the most on game days and recommended steps to target those students when considering prevention policies. The University of Texas found that “away” games can put students at as much or more risk than home games because many students gather to watch them on television at parties well-supplied with alcohol. The University of Minnesota broke new ground in checking the

blood alcohol levels of fans leaving stadiums and found that a significant number had a BAC level higher than the .08 standard for driving under the influence. Studies also are showing that tailgating parties before games are a factor driving up the amount of alcohol consumed in stadiums and thus contribute to the harmful consequences of game-day drinking.

The University of Florida study led to recommendations that the campus provide more alcohol-free game day alternatives, and that areas for tailgating parties be designated, with a limit on the number of tailgating hours permitted. Virginia J. Dodd, PhD, and Tavis Glassman of Florida’s Health Education faculty presented findings from their research at the U.S Department of Education’s 21st Annual National Meeting on Alcohol and Other Drug Violence Prevention in Higher Education in 2007. They described how a new measure

“Win or Lose, We Boozel!” as one slogan has it. This game-day phenomenon is attracting new attention as colleges and universities search for ways to make their prevention efforts more effective.

of sports-connected drinking—Extreme Ritualistic Alcohol Consumption, or ERAC—was developed for their game-day research.

“The standard definition of binge drinking does not adequately capture how heavily people actually drink,” they said. “It does not include a time parameter.” ERAC is defined as ten drinks for males and eight drinks for females within the hours spanned by tailgate parties and games.

The Florida survey, with data from 497 students, concluded that males drink more than females on game days, but females have more adverse consequences than males. Students aged 21 to 26 drank more than those in any other other age group, while students aged 24 to 26 drank the most. Interestingly, those in this heaviest-drinking group were more aware than students in other age groups of campus campaigns aimed at limiting alcohol consumption.

“A one-size-fits-all approach to intervention is not adequate for college campus population needs,” the Florida study concluded. “It is important to identify target populations for tailored intervention efforts concerning outcomes of excessive drinking during game days. Game day represents a unique public health challenge for university officials and community leaders.”

Game-day drinking at the University of Texas was the subject of a study involving 541 students during the 2004 and 2005 football

seasons and reported last year in the journal *Addictive Behaviors*. The authors of the study were Kim Fromme, PhD, a UT psychologist, and Dan J. Neal, PhD, a psychologist at Kent State University. One of their findings suggests that tailgating and stadium drinking may have limitations as a gauge of how some sports fans drink and the risks involved. The study found that socially active women drank more when the Texas Longhorns played out of town than they did when games were played at home. Their drinking occurred mainly at watch parties and sports bars.

“For women, college game days represent more of a social occasion,” says Fromme. “The biggest problem is what other kinds of behavioral risks they engage in when drinking. That includes driving afterward or going home with a new sexual partner.”

The Texas study found that alcohol consumption by students during major sports events exceeded the amount students generally drink on such holidays as New Year’s Eve and Halloween, which are major occasions for student partying. The combination of tailgate parties and a major event in the campus stadium seems to run up alcohol consumption for many students. Moreover, maintaining responsible beverage service practices—such as assuring that customers are 21 or over—is more difficult when alcohol is sold in the stands.

FOOTBALL + ALCOHOL = HOOLIGANISM

Riots, vandalism and other types of bad behavior are nothing new when it comes to college football. Now two researchers at the University of Colorado-Denver say that the host community for college football games register sharp increases in assaults on game days. In addition, there is evidence that vandalism, arrests for disorderly conduct, and alcohol-related arrests increase on game days.

However, researchers Daniel I. Rees, PhD, and Kevin T. Schnepel say that there is no evidence that away games are related to offenses (College Football Games and Crime, ILR Collection Working Papers, Cornell University, 2008).

"Obviously, college football games have the potential to draw thousands of spectators into relatively small communities. As the number of individuals in a community increases, so too do the opportunities for disputes and altercations having nothing to do with football."

In addition, college football games are often accompanied by day-long parties and heavy drinking. Football game days were associated with substantial increases in the amount of alcohol consumed and are also associated with higher alcohol consumption than other "drinking occasions."

The largest number of game-day problems are found when an upset occurs, defined as when an unranked team beat a ranked team or when a lower-ranked team beat a higher-ranked team. Home games are associated with a 13 percent increase in arrests for drunk driving, a 41 percent increase in arrests for disorderly conduct, and a 76 percent increase in arrests for liquor law violations.

"The fact that expected arrests for alcohol-related offenses and disorderly conduct are much higher in the event of upset wins than in the event of non-upsets suggests that fans may be engaging in celebratory drinking . . . Given this result, it is difficult to rule out the possibility that the relationship between college football games and aggressive behavior is entirely driven by alcohol consumption," the researchers conclude.

The stadium itself as a venue for game-day drinking was the target of studies by University of Minnesota researchers. Traci Toomey, PhD, of the university's School of Public Health, led a team reporting on the stadium findings at the Alcohol Policy 14 Conference in San Diego in January 2008. While earlier studies have shown that college athletes are more likely than students in general to engage in heavy drinking, she said, attention also needs to be given to a more numerous group—the sports fans who account for alcohol problems in and around both college and professional sports stadiums. A

survey of law enforcement agencies has shown that 80 percent have had complaints about stadium disturbances, 65 percent have had complaints about intoxicated patrons, and 61 percent had received complaints about property damage in and around the stadiums.

The Minnesota team tackled the challenging job of getting voluntary breathalyzer tests from people leaving 16 professional football and baseball stadiums in 2006. The tests and a series of questions about drinking patterns were administered only to those who volunteered to participate and could verify that they were over 21. Overall, the survey got BAC readings from 382 persons. Sixty percent had a zero reading on the breathalyzer, so the analysis of the

**For women,
college game
days represent
more of a social
occasion,”
says Fromme.
“The biggest
problem is what
other kinds of
behavioral risks
they engage in
when drinking.
That includes
driving afterward
or going home
with a new sexual
partner.”**

results focused on the 40 percent who had a BAC above zero.

Of those with a positive BAC, 58 percent were male. More than half of the drinkers of both sexes were in the 21-25 age range. Asked about tailgating, 93 percent of those with positive BACs said they had been drinking at pre-game gatherings—having an average of 4.3 drinks at the tailgate. A majority of those who drank while tailgating also drank during the game. Only 42 percent of the drinkers who didn't tailgate did any drinking at the game.

Perhaps the most significant numbers dealt with the level of BAC among the drinkers leav-

ing the stadium. Fifty percent had a BAC higher than .05—the level associated with some degree of impairment. Twenty-two percent had a BAC of .08 or higher—the level established by enforcement agencies as too impaired to drive a motor vehicle. Drinkers in the 21-35 age group were five and a half times more likely to be in the .08 or higher group.

The Minnesota researchers concluded their Alcohol Policy 14 presentation with a startling statistic. The 22 percent of drinkers who left stadiums with a BAC level above .08 percent represent eight percent of the total number of subjects tested. Typically a stadium may seat about 60,000 people. Eight percent of that number comes out to nearly 5,000 people streaming out of a stadium in a condition too impaired to legally drive a motor vehicle!

Says Traci Toomey: “Sporting events really attract drinkers for a drinking occasion. That

should be fairly obvious to anyone who has visited a college campus on game day. Selling alcohol in the stadium and allowing tailgating are strongly related to how much drinking is going on at those events. And this offers some promising areas for prevention and further research.” □



SPECIAL OCCASIONS . . .

Students drink way more for some events, two or three times more than on a typical weekend.

IT'S HARD TO THINK ABOUT COLLEGE STUDENTS AND SPRING BREAK without thinking

about high-risk drinking. The same is true of college students and homecoming, New Year's Eve or the celebration of a twenty-first birthday. In fact, research shows that during these special occasions, the number of students who drink alcohol and the amount of alcohol they consume goes up dramatically.

Two studies by Frances K. Del Boca, PhD, of the University of South Florida, and colleagues in 2004 and 2005 asked students to keep diaries of their drinking behavior throughout the academic year (*Journal of Consulting and Clinical Psychology*, Vol. 72 and 73). They found that that drinking varied with the time of year and was higher at both the start and the

end of the academic year. Drinking also varied with the day of the week with students drinking four times as much on the weekends as during the week. In addition, drinking increased during holidays and special events and was less during exam periods.

Other studies have found that extreme heavy drinking occurs during community events such as Halloween, St. Patrick's Day, and New Year's Eve, nationally prominent sporting events such as the Super Bowl and the World Series, and local campus events such as high-profile football games, especially those with tailgating parties (*Journal of Studies on Alcohol*, No. 67, 2006).

"Students drink way more for some events, two or three times more than on a typical weekend," says Clayton Neighbors, PhD, associate professor of psychiatry and behavioral sciences at the University of Washington. "It puts them at considerable risk, especially for students who don't usually drink. With thirteen or fourteen drinks, you can end up in the emergency room."

Not only do students consume more alcohol during special occasions, their motivation for doing so is often different from their motivation for drinking on a typical weekend. In addition, special events—often characterized by off-campus parties complete with noise, litter, driving under the influence and the like—tend to exacerbate the tensions between campuses and



FOR PREVENTION



surrounding neighborhoods. Since the timing and duration of specific events are predictable, planners can take advantage of advance notice when they put prevention strategies in place.

Event-specific prevention, according to Neighbors, should be an “adjunct” to overall campus interventions. He advocates a two-pronged set of policies and approaches. One would focus on chronic alcohol abuse, and the other would target the extreme heavy drinking associated with certain events.

Many colleges currently engage in event-specific prevention, a development Neighbors finds “encouraging.” But because there is little peer-reviewed research to inform programs, these efforts are generally *ad hoc* and not necessarily effective.

To remedy this situation, Neighbors says strategic planning is needed. The question becomes, how should this planning proceed? Not surprisingly, the best way to begin is to identify a specific event, something Neighbors says is not “hard to do.” Then comes the more difficult part: choosing the interventions that will be used.

For this task, Neighbors proposes using a typology matrix introduced by William DeJong, PhD, and Linda Langford, ScD, of the U.S. Department of Education’s Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention. Across the top of the matrix, the “program and policy levels” begin with the individual and become more inclusive as they move to a group, an institution, the community and finally to society as a whole. On the left-hand side of the matrix, “areas of strategic intervention” are divided into categories of prevention, environmental change, health protection, and intervention and treatment.

The matrix below illustrates that several strategies can be pursued on different levels at the same time. As an illustration, suppose a campus decides to target the specific event of spring break. In the category of environmental change, the planners could choose an individual activity such as inviting parents to campus, a group activity such as an alcohol-free party for those who remain on campus, an institutional activity such as restricting alcohol

Areas of Strategic Intervention	Program and Policy Levels (Social Ecological Framework)				
	Individual	Group	Institution	Community	Society
Prevention					
Knowledge, Attitudes, Skills, Self-Efficacy, Behavioral Intentions					
Environmental Change					
Alcohol-Free Options					
Normative Environment					
Alcohol Availability					
Alcohol Marketing and Promotion					
Policy Development and Enforcement					
Health Protection					
Intervention and Treatment					

ALCOHOLIDAYS

On campus alcohol holidays are those days in which celebratory drinking is not only permitted but even expected. They include St. Patrick's Day or the week of Mardi Gras or Halloween, one of the most popular alcohol holidays, and others.

Steve Clarke, director of Virginia Tech's Alcohol Abuse Prevention Center, is studying the phenomenon. While some studies have looked at drinking trends on specific holidays, a complete examination of alcohol holidays is hard to find.

Clarke is collecting data on Halloween and St. Patrick's Day to help the university create a program to respond to these days when students think it's OK to drink heavily.

Clarke's list also includes the last day of classes for the semester, when students are given a day off, ostensibly to study. The weekend before classes begin for spring semester is big for parties, as are spring break and St. Patrick's Day.

Some universities schedule spring break so it coincides with St. Patrick's Day to get students off campus during the holiday. Even the weekend before Martin Luther King Jr. Day has become a big drinking weekend because students now have that Monday off, Clarke said in *The Roanoke Times* (October 21, 2007).

- advertising in school newspapers or offering
- mini-courses during the break, and a com-
- munity activity of increased enforcement. At
- the same time, health protection interventions
- could include encouraging students to use a

• “buddy system” to avoid high-risk situations
 • (an individual activity) and initiating a safe
 • ride program for those who choose to drink
 • during spring break (an institutional activity).
 • Each activity would enhance and complement
 • the others. The matrix would provide an inter-
 • vention framework, as well as a starting point
 • for a “conversation” about how to create a
 • comprehensive, integrated program.

• “The matrix is a way of thinking about
 • events on different levels,” says Neighbors.
 • “It can expand the thinking of program
 • designers.”

• Filling in every box in the matrix is not the
 • goal; rather the boxes serve as suggestions for
 • what is possible.

• Neighbors cautions that when it comes to
 • the normative environment portion of the
 • matrix, planners should recognize that per-
 • ceived drinking norms for specific events are
 • likely different than those for a typical weekend.
 • Thus, when students are deciding how much to
 • drink during specific events, they may dismiss
 • as irrelevant approaches that focus on general
 • drinking norms.

• When designing event specific prevention
 • programs, campuses have an opportunity to
 • examine available resources. For example, is
 • there a working relationship with law enforce-
 • ment? Is there a strong campus/community
 • partnership that can be included in the plan-
 • ning process? The fact that these programs
 • are built around predictable events means



**Once a campus
has designed
and implemented
event specific
prevention,
interventions can
be assessed and
subsequently
adapted for the
next event.**

that colleges can concentrate their resources and increase the relevance and the impact of the selected activities. Also key to a successful program is experience.

“If you’ve never done event-specific prevention, start out with an event at the beginning of the year,” says Neighbors. “Then you can get experience with the nuts and bolts.”

For example, if the program includes sending out a mailing, how much does it cost for postage? Will the campus art department help with materials design? What can policy makers do to facilitate the programs and which policy makers can be depended upon? It is important to think through the details.

Once a campus has designed and implemented event specific prevention, interventions

can be assessed and subsequently adapted for the next event. In this way, each intervention builds on the experience of the previous one, improving the chances for effectiveness and conserving scarce resources. For example, a web-based survey and feedback instrument is one intervention that can be easily modified as the occasion demands.

As with any prevention program, event specific prevention needs to take into account the characteristics of the individual college and the event. On some campuses, Halloween celebrations may be an occasion for extreme heavy drinking, whereas on other campuses, this may not be the case. And while high-risk drinking during student spring break often leads to risky sexual behavior, this does not occur as fre-

quently during an event such as homecoming or graduation.

Event specific prevention can be a valuable part of an overall campus prevention program. But it works best when it is strategically implemented using the framework of the typology matrix, the knowledge of an event’s characteristics and the application of available resources. With time and know-how, perhaps preventionists can break the link between specific events and extreme high-risk drinking among college students. □

Editor’s note: For more information about event-specific prevention, please see Neighbors, C., Walters, S.T., Lee, C.M., Vader, A.M., Vehige, T., Szigethy, T., & DeJong, W. (2007) Event-specific prevention: Addressing college student drinking during known windows of risk. Addictive Behaviors, 32, 2667-2680, available online at www.sciencedirect.com.



BOOK REVIEW

Paying the Tab: The Costs and

By Philip J. Cook.

Princeton University Press, 2007

ISBN-13 978-0-6911-2520-6.

THE CENTER FOR SCIENCE IN THE PUBLIC INTEREST says that alcohol excise tax increases represent one well-justified and available source of revenue. Taxes on alcohol are low and long overdue for increases (the last one occurred in 1991). They do not impose much of a burden (if any) on the vast majority of consumers, and they can provide a source of significant revenue—both to meet budget needs and to help reduce the harmful effects of alcohol use.

excise tax rates on alcoholic beverages would contribute to the reduction in the budget deficit in a way that has no significant adverse economic effects and would have substantial social benefits, while tending to increase economic efficiency.”

... alcohol taxes promote the public health and safety.

Now, Philip J. Cook's recent book, *Paying the Tab: The Costs and Benefits of Alcohol Control*, makes a strong case for raising alcohol excise taxes, drawing on history, political philosophy and economics. Cook, a professor of public health policy and economics at Duke University, says

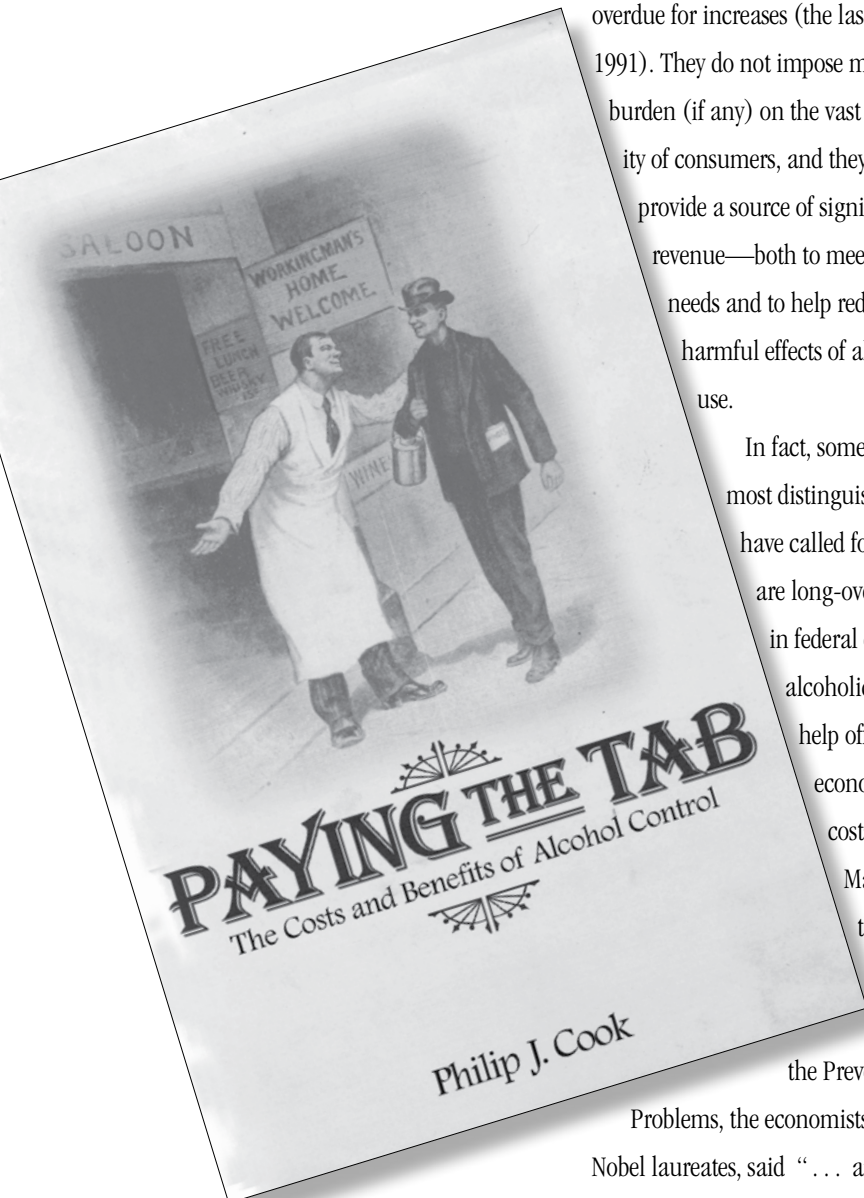
unequivocally that alcohol taxes promote the public health and safety.

“The empirical evidence to support this conclusion is quite clear, even if it does contradict much intuition. It is a great challenge to promote that prevalent intuition so that it conforms to what the data tells us. Somehow that battle has been won in the case of tobacco, but has scarcely been engaged when it comes to alcohol. Maybe it helps to think of it this way: There are all kinds of institutions working to combat alcohol abuse, including families, churches, schools, health departments, workplaces, and law enforcement agencies. Is their job harder or easier if alcohol is cheap?”

Cook reviews the history and efficacy of a

In fact, some of America's most distinguished economists have called for what they say are long-overdue increases in federal excise taxes on alcoholic beverages to help offset the massive economic and social costs of alcohol. In a May 2005 declaration to Congress organized by the Coalition for the Prevention of Alcohol

Problems, the economists, who include four Nobel laureates, said “... an increase in the



Benefits of Alcohol Control

wide range of alcohol control policies, including dram shop liability, local control options, minimum legal drinking age, among others, and concludes that “of all the alcohol control measures, taxes have unique advantages. They help curtail alcohol abuse and its consequences without a direct restriction on freedom of choice. They can be set high or low or anywhere in between, providing the possibility of a calibrated response to the costs of alcohol related problems. And, rather than competing for resources with other governmental priorities, alcohol taxes enhance public revenues.”

Cook points out that the immediate motivation when the first Congress imposed a whiskey excise tax in 1792 was revenue enhancement, which has been “paramount in federal and state policy ever since.”

“But one important justification for special tax treatment of alcohol has always been the unique, problematic qualities of alcohol. As it was over 200 years ago, the question is not whether alcoholic beverages should be subject to higher taxes than other commodities, but just how high these taxes should be. The U.S. Congress’s answer to this question in recent years has been ‘far lower than they used to be.’”

That’s because, looking back fifty years from

2005, the federal excise tax on distilled spirits (adjusted for inflation) was 5.7 times as high, and the excise tax on beer 3.6 times as high. Cooks says that the reason for the decline are “something of a mystery, but surely not due

to a corresponding decline in alcohol-related problems. By a number of standards, beginning with this standard, alcohol taxes are much too low.” □

BRITISH MEDICAL ASSOCIATION CALLS FOR ALCOHOL TAX INCREASE

A new report from the British Medical Association called *Alcohol misuse: tackling the UK epidemic* (February 2008) says that it is essential that the UK Governments implement alcohol control policies that are evidence-based and proven to reduce alcohol-related harm, including controlling price and availability. It says:

“There is strong and consistent evidence that increases in price have the effect of reducing consumption levels, and the rates of alcohol problems including alcohol-related violence and crime, deaths from liver cirrhosis, and drink-driving deaths. Increases in the price of alcohol not only affect consumption at a population level, but there is evidence that particular types of consumers (e.g. heavy drinkers and young drinkers) are especially responsive to price. Studies have also reported that price increases have the effect of reducing rates of alcohol problems including alcohol-related violence and crime. As part of a range of measures to reduce alcohol misuse, it is essential that the level of excise paid on all alcoholic beverages is increased at higher than inflation rates and that this increase is proportionate to the amount of alcohol in the product. This increased taxation would reduce alcohol consumption and its related harms, and would also contribute to providing the necessary funding to meet the social and economic costs of these harms.”

The full report is available at [http://www.bma.org.uk/ap.nsf/AttachmentsByTitle/PDFTacklingalcoholmisuse/\\$FILE/Alcoholmisuse.pdf](http://www.bma.org.uk/ap.nsf/AttachmentsByTitle/PDFTacklingalcoholmisuse/$FILE/Alcoholmisuse.pdf)



William DeJong, PhD, is a professor of social and behavioral sciences at the Boston University School of Public Health.

THE AGE 21 DEBATE: BATTLING

by William DeJong

STEPPING DOWN AFTER 13 YEARS at the helm of Middlebury College, John McCardell fired off an op-ed to *The New York Times* in 2005 to express his views on faculty tenure, faculty-student ratios, and the legal drinking age. These were opinions, he explained, that he was not bold enough to state while president. Gaining particular notice was his declaration that the age 21 law was “bad social policy and terrible law.”

McCardell’s preferred solution is to lower the drinking age to age 18 and teach college students how to drink. Defending this position, he wrote: “Would we expect a student who has been denied access to oil paint to graduate with an ability to paint a portrait in oil? Colleges should be given the chance to educate students, who in all other respects are adults, in the appropriate use of alcohol, within campus boundaries and out in the open.”

The soundness of McCardell’s argument hinges on whether we think a young person at age 18 should be considered an *adult*. In fact, how we answer that question depends on what the word “adult” means. There are two standard definitions of *adult* that need to be considered.

Biological Definition

The first definition is a biological definition: an *adult* is a fully grown, mature organism. Is an 18-year-old fully grown? Actually, recent research on adolescent brain development

shows that the brain continues to mature until people are in the early 20’s, especially those areas that govern risk analysis, judgment, and planning. Advocates for the age 21 minimum legal drinking age law underscore that alcohol exposure negatively affects brain development.

There are additional arguments favoring the age 21 law. Right now, there is concern that 21-year-old juniors and seniors in college are providing alcohol to their underage friends. Do we want to worry instead about immature 18-year-old high school seniors providing alcohol to their younger classmates?

Importantly, evaluation research clearly shows that the age 21 law is saving lives, putting defenders of the current law on firm ground.

During the Vietnam War, 29 states lowered their legal drinking age to 18, 19, or 20. In 1984, President Reagan signed the Uniform Drinking Age Act, which threatened the states with a loss of federal transportation funding if they did not return to an age 21 law. All 50 states have complied for over 20 years.

Having the laws change back and forth provided researchers the opportunity to study the impact of the age 21 law. A 2002 literature review conducted by Wagenaar and Toomey found nearly four dozen high-quality studies that reported a relationship between a higher minimum legal drinking age and decreased traffic crashes (*Journal of Studies on Alcohol*, Suppl.14, 2002). By 2002, the U.S. Department

OVER THE WORD “ADULT”

of Transportation estimated that the age 21 minimum legal drinking age laws had saved nearly 22,000 lives since 1985.

Legal Definition

The other definition of “adult” is a legal definition: an *adult* is a person who has attained legal age of majority and enjoys all of the rights and responsibilities of adulthood. The age of majority is established by various federal and state laws.

McCardell and others who favor a lower drinking age note that young Americans can vote and join the military at age 18, and that in most states they can marry without parental consent and sign binding contracts. To promote his cause, McCardell founded a group called *Choose Responsibility*, which recommends “that young persons upon turning 18 be consistently referred to as adults.”

It is no coincidence that the debate over the age 21 law has resurfaced while the Iraq War goes into its sixth year. As noted, many state legislatures were moved to lower the drinking age from 21 to 18 as the Vietnam War raged on, and young men were being conscripted into military service. Many people think it is simply unfair for a war veteran to come home from battle and not be allowed to buy a beer.

It is worth noting, however, that federal and state laws do not uniformly establish age 18 as the age of majority. Consider these examples:

As evidence mounted that virtually all addicted smokers began smoking during ado-

lescence, Alabama, Alaska, New Jersey, and Utah set 19 as the legal age for buying tobacco. New York’s Suffolk and Nassau counties have also adopted an age 19 minimum.

Under federal law, it is illegal for a person younger than 18 to purchase long-gun ammunition or a shotgun or rifle. But 21 is the legal age for purchasing handgun ammunition or a firearm other than a shotgun or rifle.

State gambling laws specify the minimum legal age to place a bet. Several states impose a different age limit, depending on the type of gambling involved (e.g., lottery, pari-mutuel betting, casinos, slot machines, charity bingo).

In Nebraska, a person under age 19 cannot marry without a signed consent from his or her legal guardian. In Mississippi, consent of a parent or guardian is required until the bride and groom are at least 21.

Money belonging to a minor can be put into a trust established under the Uniform Gifts to Minors Act. The trust is controlled by a custodian, commonly a family member, until the minor reaches the “age of trust termination.” Many states have set that age at 19 or 21, not 18. The Uniform Transfer to Minors Act is similar; in this instance, most states have set the age of trust termination at 21 years.

Some adult privileges kick in at earlier ages. In most states, for example, a person can obtain a license to operate a motor vehicle at

age 16. In Washington, a young person age 14 can obtain hospital, medical, or surgical care related to a sexually transmitted disease without the consent of a parent or legal guardian.

Cost-Benefit Analysis

Why the variability? In general, our nation’s laws recognize that the transition into adulthood is a developmental process that takes several years. There is no magic cut-off point at which a person assumes all of the rights and privileges of adulthood. Rather, in each arena, the age of majority enacted into law depends on a general assessment of the benefits and costs that accrue at that age. The chosen age is often 18, but not always.

In light of this, now consider McCardell’s proposal. Should the nation’s age 21 law be abandoned? In my judgment, the answer is *no*. If we decrease the legal drinking age, then it will be consistent with some but not all federal and state laws that specify an age of majority. If we keep the drinking age at 21, we continue to save lives. ☐



Take Back the Day!

By Mark Wood

A Call to Minor Action



Mark Wood, PhD, is a professor of psychology at the University of Rhode Island

DUE TO A COUPLE OF LARGE PREVENTIVE INTERVENTION GRANTS, it had been four years

since I had last taught undergraduates, and I found myself eager to get back in the classroom. This was all the more the case given that I was teaching Introductory Social Psychology, a course that had captured my attention as an undergraduate and profoundly and positively re-directed my career aspirations. The undergraduates in the class seemed much as I remembered (only younger looking). As usual, their enthusiasm, interest, and motivation seemed to span the continuum from undetectable to refreshingly high. Perhaps I should have had an inkling of things to come when we went around the room on the first day of class introducing ourselves, saying where we were from, any brushes with fame we had, what we liked to do and so forth. The course teaching assistant and I both were somewhat surprised at the number of students who indicated that among their favorite things to do were “to hang out in the local bars” and “party.” I chalked my reaction up to advancing age.

It has long been my belief—even before becoming firmly entrenched in the “curmudgeon years” of middle age—that we typically don’t expect enough of our students academically, perhaps, particularly, in psychology courses.

The course teaching assistant and I both were somewhat surprised at the number of students who indicated that among their favorite things to do were “to hang out in the local bars” and “party.”

Accordingly, I strive to make my courses challenging but fair. This includes a fair amount of reading and writing, group presentations, and, of course, exams. A few days prior to the second exam, scheduled for November 1st, I received the following e-mail:

*Professor Wood,
With the approach of our next exam on Thursday the 1st, I would just like to express to you my concerns about the inconvenient timing of the exam. I’ve spoken with many students in the class and the general consensus is that many students feel their performance on the exam will be hindered due to the fact that*

*it takes place the day after Halloween, as well as the exciting World Series victory by the Red Sox. GO SOX! :) I know that this decision is completely up to your discretion, but I’m sure everyone would really appreciate having a few extra days to study without distraction. Thank you for your time,
Jessica B.*

As an alcohol researcher whose primary focus is in the area of college student drinking, I am well aware of the National Institute on Alcohol Abuse and Alcoholism's Task Force on College Student Drinking's prevention recommendations. One of the most interesting sug-

gestions called for "reinstating Friday classes and exams to reduce Thursday night partying; possibly scheduling Saturday morning classes." Indeed, Professor Philip Wood and colleagues, in a large longitudinal study of college students, found that students reported excessive drinking on Thursday nights as compared to other weekdays. Moreover, heavy consumption varied according to Friday class schedule, with students



not having classes at all or before noon reporting approximately two times as much drinking on Thursdays as compared to students with early Friday classes. This effect was even more pronounced for men and for those who were members or attended fraternity/sorority events (see page 17).

Mallie Paschall and colleagues have observed similar findings among college students in New Zealand (*Journal of Studies on Alcohol*, No.67, 2006). Although I have heard of some universities adding additional or required Friday classes I have not yet seen any published studies comparing alcohol use and consequence rates before and after such a policy change.

While extending the academic week seems like a very worthwhile endeavor, my colleagues and I (a couple recounted similar stories in response to my informal distribution of the above e-mail) find ourselves merely attempting to protect the four day week. Is nothing sacred? When did students begin to feel, strongly enough to cajole their professors, that when a holiday and academic work conflicted, the holiday should be a clear winner? When and how did Halloween get co-opted from kids in costumes getting candy?

As with most things, there are, undoubtedly, multiple causes. Two notable ones that come quickly to mind include the advertising proclivities of the alcohol industry and the nature of the college experience itself. It's been more than twenty years since Elvira, Princess

of Darkness, started hawking Coors around Halloween. The practice was immediately adopted by other alcohol (and non-alcohol) marketers and by 1995 *The New York Times* noted that according to one survey, Halloween ranked behind only New Year's Eve and the Super Bowl as the

biggest night of the year for adult parties (Oct 31, 1995). By the mid-1990s, MADD and other advocacy organizations such as the Center on Alcohol Advertising, creators of "Hands Off Halloween," had called on the alcohol industry to cease incorporating Halloween into their promotions. Any success that they may have had in this endeavor does not appear to have trickled down to Jessica, who, interestingly enough, did not seem to consider the possibility of studying prior to the night before the exam.

As I also noted, I believe, not unrelated to the dearth of Friday classes, that there's something about the nature of the college experience itself that contributes to some students prioritizing partying ahead of studying. Jeffrey Arnett has written about "emerging adulthood", as a new way of conceptualizing development from approximately ages 18 to 25, especially in contemporary cultures like ours that promote postponement of entry into adult roles and responsibilities well beyond the late teens (*American Psychologist*, No.55, 2000).

One feature of emerging adulthood is that the prevalence for several types of risk behaviors, including alcohol abuse, peaks for most individuals during this period. In part this is one aspect

of identity exploration, and Arnett's research suggests that emerging adults have subjective awareness that they are betwixt and between in terms of adolescence and adult responsibilities. Our data concur both with respect to the high levels of drinking and the awareness of being in somewhat of a "cultural timeout." We invariably elicit feedback from participants in our studies on the interventions and college drinking more generally. A kind of consensus set of responses is that students clearly recognize that "it's not like I'm going to always be able to party like this" and thus it's important to do so before truly impactful environmental interventions like "real jobs", "families" and the like exert their influence. Perhaps with higher workloads and higher expectations more students' priorities might be realigned? Maybe not, but in the meantime it really was an easy response to Jessica's query.

Dear Jessica,
Quantum mechanics theory, to the best I can understand it, posits that there are unlimited alternative universes where various versions of me (and you and the rest of the class) may be engaged in various forms of the sorts of activities that we are engaged in here. Let me assure you that in NONE OF THEM (this one included) will the date of the exam changing.

Cordially,
Professor Wood
P.S. You are, of course, more than welcome to show up in costume. □

Friday Classes—Oh My!

In 2002 *A Call to Action: Changing the Culture of Drinking at U.S. Colleges*

(National Institute on Alcohol Abuse and Alcoholism) suggested that colleges and universities reinstate Friday classes and exams to reduce Thursday night partying and consider scheduling Saturday morning classes as well as a way to reduce high risk drinking. A study by University of Missouri psychology professor Phillip K. Wood, PhD, found that Friday classes can make a difference when it comes to heavy drinking the night before (*Alcoholism: Clinical & Experimental Research*, July 2007). According to the report, students were more likely to drink, and likely to drink more, on Thursdays if their Friday classes started after 10 a.m. The amount of Thursday drinking increased the later Friday class started, peaking among students who had no Friday courses.

"We found significant relationships between the presence and timing of Friday classes and Thursday drinking," Wood wrote in the study's conclusion, "About half of the students with late or no Friday classes consumed at least one drink on Thursday, but only a third of students did so if they had Friday classes which met at 10 a.m. or earlier. Approximately two-thirds of students who consumed some alcohol Thursday con-

sumed a 'binge amount' if they had late or no Friday classes."

Wood said that men who drank at least one drink on Thursday consumed on average between six to 7.5 drinks as a function of Friday-class schedule, while women consumed on average between four and five drinks. Binge drinking—defined as five or more drinks for men and four or more drinks for women—was also dramatic when results were broken out as a function of class schedule: "... between 50 and 70 percent of students who consumed at least one drink on Thursday reported binge drinking," he said.

"Many students, particularly freshmen and sophomores, are required to take core classes," Wood told *Science Daily*. "Early undergraduates may not have much choice if core classes were only available on Friday. Or perhaps it would be cost effective to offer students cheaper tuition if they elect to take early Friday (and Saturday) classes. For faculty, there appear to be two issues. First, I was surprised to learn that some faculty have a day of the week that they use for consultation or other research. I would think that this day could just as easily be more evenly distributed across the week. Faculty could also be positively induced to teach

more early Friday classes in return for additional instructional support, partial release from other academic service obligations, or even salary considerations."

In summary, said Wood, university administrators should seriously consider increasing the number of Friday classes, either overall, or specifically for individuals who are at high risk for problem drinking. "Given that men and Greek participants show a stronger Friday-class effect," he said, "these are precisely the folks who should be targeted."

While the scheduling of Friday classes is not widespread on campuses, that may begin to change as more colleges and universities seek to strengthen academic standards. For example, a Southern Methodist University task force report has called a culture shift to make SMU more about academics and less about partying. On the academic side, ideas include holding more Friday morning classes, to cut down on Thursday night partying.

The campus "must increase the academic rigor expected of students," the report said. Compared with students at peer campuses, SMU students are less likely to work and have more disposable income, which can create more chances for heavy drinking.

SALVIA DIVINORUM

RIISING POPULARITY AMONG



A POWERFUL HALLUCINOGENIC
DRUG APPEARS TO BE GAIN-
ING IN POPULARITY

of Alcohol and Drug Initiatives at San Diego
State University. Lange and fellow researchers

among college students despite a scarcity of information about its potential for harm. The Internet has become an integral part of the phenomenon, both as a source for purchasing the drug and as a place for exhibiting and observing its effects.

The drug is known on the street as salvia, short for salvia divinorum, a plant long used by native populations in parts of Mexico for spiritual and medicinal purposes.

The drug is known on the street as salvia, short for salvia divinorum, a plant long used by native populations in parts of Mexico for spiritual and medicinal purposes.

have completed one of the first efforts to measure the extent of salvia's popularity in a student population. Their findings are reported in the journal *Drug and Alcohol Dependence* (January 2008)

Their survey conducted in the fall of 2006 and the spring of 2007 found that 4.4 percent of undergraduate students at a large university in the southwestern United States reported having used salvia at least once in the past year. This compares with a rate of less than one percent among undergradu-

ates at the same university who mentioned salvia in a survey of their drug use in the fall of 2005 and the spring of 2006. This comparison indicates that salvia has been catching on quickly.

"It's about as common as mushrooms, but not as common as cocaine. It is more common than crystal meth," says Lange. The survey also found that salvia users are found mainly among students already considered most at risk for drug use—white males, fraternity members and episodic

Although salvia's striking effects as

a recreational drug have been easy to observe, it remains legal in most of the United States and Canada.

"We need a lot more research, both on the effects of salvia

on people and the potential for

harm to individuals and the surrounding community," says James Lange, PhD, coordinator



COLLEGE STUDENTS



heavy drinkers—and salvia users more often than not have also used some illegal drug.

Salvia also has caught on quickly on the Internet. It is easy to buy from Internet sources, as well as at “head shops” convenient to campuses. David Khey, a doctoral candidate at the University of Florida, found in a 2006–2007 survey of about 1,000 students that 22 percent had heard of salvia, usually from friends who were pot-smokers or otherwise involved in the drug culture. Most of the Florida students who

had used salvia said they got it at a “head shop,” paying \$30 to \$50 per gram in a form to be smoked in a bong or a pipe. One Florida shopkeeper says salvia “flies off the shelves” when a supply arrives from sources in Mexico or southern California.

The students in Khey’s Florida study had mixed reactions to their experience with salvia. “Asked if they liked it or not, they seemed to

come down in the middle, giving it about 5 on a scale of 1 to 10,” Khey says. “Some said it wasn’t all that great, and 51 percent said they wouldn’t try it again.”

Lange noted that videos of people using salvia are turning up on YouTube sites on the



Internet. “There are literally thousands of videos available of people using it,” he told *Prevention File*. “The most profound effects seem to last five to ten minutes. Often the person acts confused, has jerky movements, or talks to people who are not there. We need to remember that these videos are self-selected.

People tend to put something funny

on YouTube. But some of the videos are just scary—people writhing around on the floor, completely disoriented.”

Authors of the San Diego study point to its limitations. “First, it is a small study reporting the use from only one (albeit large and diverse) campus using only self report measures,” say the authors. “It is not clear that the studied campus is indicative of all U.S. college campuses. The campus studied was within a state with no legal controls on salvia; use may differ in states that have implemented controls.”

At the beginning of 2008, only eight states had taken formal action to prohibit or limit access to salvia. The measures ranged from an outright ban on salvia as a Schedule 1 prohibited drug to a provision that it should not be sold to anyone under 18. The federal Drug Enforcement Agency has put salvia on its “watch list” but has not taken steps to prohibit its sale or use. Salvia does

not appear to be addictive, but its use may have harmful consequences. Delaware’s law banning salvia is known as “Brett’s Law,” named for a 17-year-old who committed suicide after he started using salvia.

Some health advocates concerned about salvia use indicate they are hesitant to cast a media spotlight on the drug by proposing it be banned. Pharmacologists have noted that the chemical structure of salvia’s active ingredient is unique, and the plant might hold some promise of usefulness in treating certain forms of mental illness.

How dangerous is salvia? The published findings of the San Diego study point to the difficulty in answering that question. “To date, there are no toxicological studies indicating medical harm, and our survey did not ask students to report social, psychological or legal consequences that may have been experienced. There are no legal or school-based consequences associated strictly with the use of salvia. However, use of this or any hallucinogenic drug within some contexts, such as driving, is illegal and certainly would pose a risk. We have no indication that any student engaged in a particularly risky use of salvia. Campus professionals and those interested in prevention of drug abuse would benefit from more detailed investigations into salvia use and consequences prior to programmatic or policy development.”

In other words, the jury is still out. ☐

Continued from inside front cover

Swanson, PhD, of the University of California at Irvine, in a letter to *Nature*. "Among high school students, abuse of prescription medications is second only to cannabis use."

Downtown Drinking Problem

A neighborhood group in Madison, WI, has called for the city to implement a research-based strategy that it says more or less needs to be implemented in whole to have any real effect.

"Downtown Madison has been struggling with its

drinking problem for some time now, and things don't seem to be getting better," Rich Brown, a physician, public health researcher and member of Capitol Neighborhoods Inc CNI, told the *Wisconsin State Journal*, Jan. 25, 2008).

The report outlines seven strategies from the National Institute on Alcohol Abuse and Alcoholism 2002 report *A Call to Action* to reduce binge drinking and the bad behavior that often accompanies it. Key to the approach is the creation of a group made up of campus and community leaders to work on ways to prevent binge drinking.

Other recommendations are to increase enforcement so illegal drinkers have a realistic fear that they can be caught and for University of Wisconsin-Madison to screen all students for alcohol abuse. The report also calls for hiking the price of alcohol through the abolishment of caps on license fees for alcohol sellers and increases in the tax on alcohol. It recommends that by 2009, alcohol process be increased by 20 percent in downtown areas with high alcohol-related crime and that legislation be introduced to raise state alcohol taxes.

Aggression and Parties

A new study has found that drinking at a fraternity, sorority or campus residence increases the likelihood of aggression, and that attending parties can especially increase aggression for women *Alcoholism: Clinical & Experimental Research* (March 2008).

Aggression among university students likely reflects aggression in society, said researcher Tim Stockwell, PhD, professor and director of

the Centre for Addictions Research of British Columbia at the University of Victoria. "I would not expect students to have lower or higher levels," he said. "Aggression and violence are features of group drinking situations, in general, especially where these involve groups of young men who are strangers to each other and are in competition in various ways."

The study found that the more drinks students consumed, the greater their likelihood of experiencing aggression. Aggression was more likely when students drank at a fraternity, sorority or residence, when their partner was present, and when they drank at three or more places on the same occasion. Drinking at a party also increased the likelihood of aggression, especially women. Conversely, aggression was less likely when students had a meal.

The finding of greater aggression among women than men at parties was consistent with previous research showing that women tend to report aggression with people they know and at home, whereas men are more likely to report aggression with strangers in public places.

"Prevention programs that focus on preparing women for the risks associated with drinking at parties might help to reduce their likelihood of experiencing aggression," said Samantha Wells, PhD, a scientist at the Centre for Addiction and Mental Health, Toronto, and co-author for the study.

Risky Business during Spring Break

Alcohol and sex play a prominent and potentially dangerous role in spring break trips of college co-eds according to recent American Medical Association poll. Eighty-three percent of the respondents agreed spring break trips involve more or heavier drinking than occurs on college campuses and 74 percent said spring break trips result in increased sexual activity.

That study found that nearly three out of five women know friends who had unprotected sex during spring break, and that one in five respondents regretted the sexual activity they engaged in during spring break. Twelve percent also said they felt forced or pressured into having sex. One in five respondents regretted the sexual activity they engaged in during spring break. An overwhelming majority (84 percent) of respondents thought images of college girls partying during spring break may contribute to an increase in females' reckless behavior and an even higher percentage (86 percent) agreed these images may contribute to dangerous behaviors by

"Women are fed up with the marketing tactics and images from the alcohol industry and spring break tour operators," said J. Edward Hill, MD,

president of the AMA. "Public health advocates should also be fed up since aggressive spring break marketing endangers the health and safety of college students."

Prescription Medications and Drug Abuse

College students who take frequently abused medications without a prescription appear to have a higher risk for drug abuse than those who use such therapies for medical reasons, according to a report in the *Archives of Pediatrics & Adolescent Medicine* (March 2008).

"Several studies have reported recent increases in the prescription rates of abusable medications in the United States, including stimulants, opioids and benzodiazepines. These increases are likely the result of many factors, including improved awareness regarding the signs and symptoms of several disorders, increased duration of treatment, and availability of new medications and increased marketing. The increases in prescription rates have raised public health concerns because of the abuse potential of these medications and high prevalence rates of non-medical use, abuse and dependence, especially among young adults 18 to 24 years of age," researcher Sean Esteban McCabe, PhD, of the University of Michigan, Ann Arbor, told *Science Daily* (March 4, 2008).

The survey asked whether the students had been prescribed or had used without a prescription four classes of prescription drugs—opioids, stimulants, sleeping aids and sedative or anxiety medications. Questions about whether the students had experienced drug-related problems (for instance, performing illegal activities to obtain drugs, having withdrawal symptoms or developing medical problems as a result of drug use) were used to screen them for drug abuse.

Those who had reported that they used drugs without prescription—whether or not they had also used them for medical reasons—were more likely to screen positive for drug abuse than those who had used the drugs only for medical reasons or had never used them at all. There was no difference in the rate of positive screening between those who had reported using the drugs by prescription and those who reported never having taken them.

"Clearly, appropriate diagnosis, treatment and therapeutic monitoring of college students who are receiving abusable prescription medications is crucial, not only to improve clinical outcomes but also to help prevent the abuse of these medications within a population that is largely responsible for its own medication management," McCabe concluded. "Finally, any efforts aimed at reducing non-medical use of prescription drugs will have to take into consideration that these drugs are highly effective and safe medications for most patients who use them as prescribed."



Concerned about alcohol, other drugs, or violence on campus?

Our Services

- Training
- Technical assistance
- Web site
- Free publications

Ask us about —

- Comprehensive approaches to prevention
- Campus and community coalitions
- Strategic planning and evaluation

www.higheredcenter.org
800-676-1730

The U.S. Department of Education's
HIGHER EDUCATION CENTER
FOR ALCOHOL AND OTHER DRUG ABUSE
AND VIOLENCE PREVENTION